

What is claimed is:

1. An electrochemical cell, which comprises:
  - a) a ring having a surrounding ring sidewall extending to a ring upper end and a ring lower end;
  - b) a base having a surrounding base sidewall extending to a base upper end and a base lower end, wherein the ring surrounds the base with the base upper end spaced below the ring upper end;
  - c) a glass material extending to and sealing with the ring sidewall and the base sidewall;
  - d) a first electrode supported on the base upper end, the first electrode having spaced apart upper and lower first electrode sides with the first lower electrode side proximate the base upper end and the first upper electrode side spaced below the ring upper end;
  - e) a separator supported on the first upper electrode side;
  - f) a second, counter electrode having spaced apart upper and lower second electrode sides with the second lower electrode side supported on the separator and the second upper electrode side spaced below the ring upper end;
  - g) an electrolyte activating the first and second electrodes; and
  - h) a plate seated to the ring upper end.
2. The cell of claim 1 wherein the base comprises a recess into which the first electrode is nested.

3. The cell of claim 2 wherein with the first electrode nested in the recess of the base, the upper end of the first electrode is either substantially coplanar with the base upper end or spaced above the base upper end.
4. The cell of claim 1 wherein the plate applies stack pressure to the first and second electrodes.
5. The cell of claim 1 wherein a spring biases between the plate and the second electrode to apply stack pressure to the first and second electrodes.
6. The cell of claim 1 wherein the ring lower end and the base lower end are coplanar.
7. The cell of claim 1 wherein the ring upper end includes a step that receives the plate.
8. The cell of claim 1 including an insulative ring surrounding the first electrode.
9. The cell of claim 1 of either a primary or a secondary chemistry powering an implantable medical device.
10. The cell of claim 1 wherein the first electrode is a cathode of a cathode active material capable of intercalating or intercalating and deintercalating lithium and the second electrode is an anode comprised of lithium or an anode active material capable of intercalating and deintercalating lithium.

11. The cell of claim 1 wherein the base is selected from the group consisting of nickel, titanium, molybdenum, and alloys thereof, and the ring and lid are of stainless steel.

12. A method for providing an electrochemical cell, comprising the steps of:

- a) providing a ring having a surrounding ring sidewall extending to a ring upper end and a ring lower end;
- b) providing a base having a surrounding base sidewall extending to a base upper end and a base lower end;
- c) positioning the base inside the ring surrounding the base with the base upper end spaced below the ring upper end;
- d) sealing the base to the ring with a glass material;
- e) positioning a first electrode on the base upper end, the first electrode having spaced apart upper and lower first electrode sides with the first lower electrode side proximate the base upper end and the first upper electrode side spaced below the ring upper end;
- f) supporting a separator on the first upper electrode side;
- g) positioning a second, counter electrode on the separator, the second electrode having spaced apart upper and lower second electrode sides with the second upper electrode side spaced below the ring upper end;

- h) activating the first and second electrodes with an electrolyte; and
- i) sealing a plate to the ring upper end.

13. The method of claim 12 including providing the base having a recess and nesting the first electrode into the recess.

14. The method of claim 13 including providing the upper end of the first electrode being either substantially coplanar with the base upper end or being spaced above the base upper end with the first electrode nested in the base recess.

15. The method of claim 12 including having the plate applying a stack pressure to the first and second electrodes.

16. The method of claim 12 including applying stack pressure to the first and second electrodes with a spring biasing between the plate and the second electrode.

17. The method of claim 12 including providing the ring lower end and the base lower end being coplanar.

18. The method of claim 12 including providing the ring upper end comprising a step receiving the plate welded to the ring.

19. The method of claim 12 including surrounding the first electrode with an insulative ring.

20. The method of claim 12 including providing the cell of either a primary or a secondary chemistry powering an implantable medical device.

21. The method of claim 12 including providing the first electrode as a cathode of a cathode active material capable of intercalating or intercalating and deintercalating lithium and the second electrode as an anode comprised of lithium or an anode active material capable of intercalating and deintercalating lithium.

22. The method of claim 12 including providing a first coefficient of thermal expansion of the ring being greater than a second coefficient of thermal expansion of the glass, which, in turn, is greater than a third coefficient of thermal expansion of the base.

23. The method of claim 12 including selecting the base from the group consisting of nickel, titanium, molybdenum, and alloys thereof, and providing the ring and lid being of stainless steel.